PTO/SB/08A (10-01)

Approved for use through 10/31/2002. OMB 0651-0031
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

Examiner

Signature

## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Application Number

Divisional of 09/245,331

Filing Date

January 25, 2002

First Named Inventor

BRIGGS et al.

Prior Group Art Unit

Prior Examiner Name

J. Graser

Attorney Docket Number

000295 00014

(use as many sheets as necessary)

Sheet of Attorney Docket Number 000295.00014

	U.S. PATENT DOCUMENTS								
Examiner Cite		Document Number	Publication Date	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Releva				
Initials * No.1	Number - Kind Code <sup>2</sup> (if known)	MM-DD-YYYY		Passages or Relevant Figures Appear					
V <sub>I</sub>		US- 5,476,657	12/19/1995	Potter					
M		US- 5,422,110	06/06/1995	Potter et al.					
17	1	US- 5,733,780	03/31/1998	Briggs et al.					
-		US-							
		US-							
		US-							
		US-							
		US-			<u> </u>				
		US-							
		US-							
	1	US-							
		US-							
		US-							
		U\$-							
	<u> </u>	US-							

	FOREIGN PATENT DOCUMENTS									
Examiner	Cite	Foreign Patent Document			Pages, Columns, Lines, Where Relevant					
Initials*	No.1	Country Code <sup>3</sup> - Number <sup>4</sup> - Kind Code <sup>5</sup> ( <i>if known</i> )	Date MM-DD-YYYY	Applicant of Cited Document	Passages or Relevant Figures Appear	T <sup>6</sup>				
Q-		WO 97 16531 A1	05-09-1997	Commonwealth Scientific and Industrial Research Org.						
$\pm$										
						-				
		001								

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Date

Considered

<sup>1</sup> Applicant's unique citation designation number (optional) . <sup>2</sup> See Kinds Codes of USPTO Patent Documents at <a href="www.uspto.qov">www.uspto.qov</a> or MPEP 901.04.

<sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached. Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.

Sheet 1 of	_
Div. of	74 PTO
	05517

## PTO-1449 (Modified)

U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE

INFORMATION DISCLOSURE STATEMENT
BY APPLICANT

000295,00014

014 09/24

APPLICANT

Robert E. Briggs & Fred M. Tatum

FILING DATE
Herewith

GROUP ART UNIT (Prior) 1645

U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	Translation Yes/No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) George L. Murphy et al. "Hemolytic Activity of the Pasteurella haemolytica Leukotoxin" Infection and Immunity, August 1995, pgs 3209-3212 Natalie D. Fedorova & Sarah K. Highlander "Generation of Targeted Nonpolar Gene Insertions and Operon Fusions in Pasteurella haemolytica and Creation of a Strain that Produces and Secretes Inactive Leukotoxin" Infection and Immunity, July 1997, pgs. 2593-2598 Fred M. Tatum et al. "Construction of an isogenic leukotoxin deletion mutant of Pasteurella haemolytica serotype 1: characterization and virulence" Microbial Pathagenesis 1998; 24: 37-46 Robert E. Briggs et al. "Development and testing of a unique strain of Pasteurella haemolytica for use in studies on colonization of the respiratory tract of cattle" AJVR, Vol. 59, No. 4, April 1998 Robert E. Briggs et al. "Rapid spread of a unique strain of Pasteurella haemolytica serotype 1 among transported calves" AJVR, Vol. 59, No. 4, April 1998 Glynn H. Frank et al. "Colonization of the tonsils and nasopharynx of calves by a rifampicin-resistant Pasteurella haemolytica and its inhibition by vaccination" Am J Vet Res., Vol 56, No. 7, July 1995 G.H. Frank et al. "Serotype-specific inhibition of colonization of the tonsils and nasopharynx of calves after Pasteurella haemolytica serotype A1 after vaccination with the organism" Am J Vet Res, Vol 55, No. 8, August 1994 G.H. Frank & R.E. Briggs "Colonization of the tonsils of calves with Pasteurella haemolytica" Am J Vet Res, Vol. 53, No. 4, April 1992 Glynn H. Frank "Infection of the middle nasal meatus of calves with Pasteurella haemolytica serotype 1" Am J Vet Res, Vol 50, No. 8, August 1989 David C. Straus et al. "In Vivo Production of Neuraminidase by Pasteurella haemolytica in Market Stressed Cattle After Natural Infection Current Microbiology, Vol 37 (1998) pgs. 240-244 Glynn H. Frank et al. "Respiratory tract disease and mucosal colonization by Pasteurella haemolytica in transported cattle" AJVR, Vol. 57, No. 9, September 1996 pgs. 1317-1320

EXAMINER	Mill	

DATE CONSIDERED

EXAMINER: Initial citation if reference was considered. Draw line through citation if not in conformance to MPEP 609 and not

considered. Include copy of this form with next communication to applicant.

S. PTO	
10/015	

		Sheet of
PTO-1449 (Modified)	ATTY. DOCKET NO. 00295 00014	serial number Div. of 09/245,331
U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	APPLICANT Briggs and Tatum	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	FILING DATE Herewith	GROUP ART UNIT 1645

THE DATESPE DOOLD COME

		<u> </u>	S. PATENT DOCUMENTS			
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
				<b> </b>		
						•
L	L	<u> </u>		1		•

FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	TRANSI YES	
	97/41823 A	11/13/1997	WIPO				
			· · · · · · · · · · · · · · · · · · ·				

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.) Cruz W.T. et al. "Deletion analysis resolves cell-binding and lytic domains of the Pasteurelle leutorin" Molecular Microbiology, Vol. 4, No. 11, November 1990, pages 1933-1939 Petras S.F. et al. "Antigenic and virulence properties of Pasteurella haemolytica leukotoxin mutants" Infection and Immunity, Vol 63, No. 5, March 1995, pages 1033-1039

**EXAMINER** 

DATE CONSIDERED

EXAMINER: Initial citation if reference was considered. Draw line through citation if not in conformance to MPEP 609 and not considered. Include copy of this form with next communication to applicant.

	Sheet of
ATTY. DOCKET NO. 000295,00014	SETIAL NUMBER Div. of 09/245,331
APPLICANT Briggs and Tatum	֓֞֞֞֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓֓
FILING DATE Herewith	GROUP ART UNIT (Prior)
	APPLICANT Briggs and Tatum FILING DATE

	U.S. PATENT DOCUMENTS						
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE	
		-					
	•						
	· · · · · · · · · · · · · · · · · · ·						
	<del></del>						
	<u> </u>						
	· · · · · · · · · · · · · · · · · · ·		-				

EXAMINER INITIAL NUMBER DATE COUNTRY CLASS SUB CLASS TRANSLATION TESMO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
Homchampa et al. "Cross protective immunity conferred by a marker-free aro A mutant of Pasteurella multocida" Vaccine 1997 Vol. 15, Number 2
Beaumont et al. "Identification and Characterization of alcR, a Gene Encoding an AraC-Like Regulator of Alcaligin Siderophore Biosynthesis and Transport in Bordetella ppertussis and Bordetella bronchiseptica" Journal of Bacteriology, February 1998, pages 862-870, Vol. 180, No. 4
Link et al. "Methods for Generating Precise Deltions and Insertions in the Genome of Wild-Type Escherichia coli: Application to Open Reading Frame Characterization" Journal of Bacteriology, October 1997, pgs. 628-6237, Vol. 179, No. 20
Cotter and Miller "BvgAS-Mediated Signal Transduction: Analysis of Phase-Locked Regulatory Mutants of Bordetella bronchiseptica in a Rabbit Model" Infection and Immunity August 1994, pgs. 3381-3390, Vol 62, No. 8
Hamilton et al. "New Method for Generating Deletions and Gene Replacements in Escherichia coli" Journal of Bacteriology, September 1989, pgs 4617-4622, Vol 171, No. 9

EXAMINER	Ohosi	DATE CONSIDERED	81	0
EXAMINER: Initial	citation if reference was considered. Draw I	ine through citation if not in conf	ormance to	MPEP 609 and not

EXAMINER: Initial citation if reference was considered. Draw line through considered. Include copy of this form with next communication to applicant.

PTO	
₽₩	∙ 를
ω <u>:</u>	
21.C	
~	<b></b> 0
10,	
ည	■"

PTO-1449 (Modified)	ATTY, DOCKET NO. 000295.00014	serial number Div. of 09/245,331
U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE	APPLICANT Briggs and Tatum	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	FILING DATE Herewith	GROUP ART UNIT (Prior) 1645

U.S.	PATENT	DOCUMENTS

		<u> </u>	3. PATENT DOCUMENTS			
EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE
		· · · · · ·				
-						
		ļ				
	·				<u> </u>	

FOREIGN PATENT DOCUMENTS

	MINER TIAL	DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB CLASS	SLATION S/NO
		97/41823 A	11/13/1997	WIPO			
1							
							:

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	Murphy G.L. et al. "Haemolytic activity of the Pasteurella haemolytica leukotoxin" Infection and Immunity, Vol. 63, No. 8, August 1995, pages 3209-3212
1	Cruz W.T. et al. "Deletion analysis resolves cell-binding and lytic domains of the Pasteurella leuktoxin" Molecular Microbiology, Vol. 4, No. 11, November 1990, pages 1933-1939
	Petras S.F. et al. "Antigenic and virulence properties of Pasteurella haemolytica leukotoxin mutants" Infection and Immunity, Vol 63, No. 5, March 1995, pages 1033-1039

EXAMINER DATE CONSIDERED

EXAMINER: Initial citation if reference was considered. Draw line through citation if not in conformance to MPEP 609 and not considered. Include copy of this form with next communication to applicant.